

## **AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in this application:

## **LISTING OF CLAIMS:**

Claims 1 to 8. (Canceled).

9. (Currently Amended) A fuel injector for a fuel-injection system of an internal combustion engine, comprising:

a solenoid coil;

a tubular support acting as an inner pole of the solenoid coil; and

a filter element affixed on an outer contour of the tubular support, the filter element including a glass fiber plastic extrusion coat;

wherein the outer contour of the tubular support includes grooves having an undulating cross section;

wherein the filter element is configured to be affixed to the outer contour of the tubular support by radially compressing the glass fiber plastic extrusion coat of the filter element into the grooves;

wherein the tubular support includes a shoulder on a discharge side of the grooves; and

wherein the shoulder extends radially outward beyond outer edges of the grooves.

Claim 10. (Canceled).

11. (Previously Presented) The fuel injector as recited in Claim 9, wherein the grooves are provided in the outer contour of the tubular support by one of machine cutting and with the aid of a form steel.

Claim 12. (Canceled).

13. (Previously Presented) The fuel injector as recited in Claim 9, wherein the filter element rests against the shoulder.

14. (Previously Presented) The fuel injector as recited in Claim 9, further comprising:

an extension sleeve surrounding the exterior of the filter element, wherein the extension sleeve has an inner diameter that is slightly smaller than an outer diameter of the filter element, whereby a press-fit between the filter element and the tubular support is achieved by the extension sleeve.

Claim 15. (Canceled).

16. (Previously Presented) The fuel injector as recited in Claim 13, further comprising:

an extension sleeve surrounding the exterior of the filter element, wherein the extension sleeve has an inner diameter that is slightly smaller than an outer diameter of the filter element, whereby a press-fit between the filter element and the tubular support is achieved by the extension sleeve.

17. (Currently Amended) The fuel injector as recited in Claim 9, wherein the filter element includes a cup-shaped filter made of a cloth material and ~~[[a]]~~ the glass fiber plastic extrusion coat.

18. (Currently Amended) The fuel injector as recited in Claim 13, wherein the filter element includes a cup-shaped filter made of a cloth material and ~~[[a]]~~ the glass fiber plastic extrusion coat.

19. (Currently Amended) The fuel injector as recited in Claim 14, wherein the filter element includes a cup-shaped filter made of a cloth material and ~~[[a]]~~ the glass fiber plastic extrusion coat.

Claim 20. (Canceled).

21. (Currently Amended) The fuel injector as recited in Claim 16, wherein the filter element includes a cup-shaped filter made of a cloth material and ~~[[a]]~~ the glass fiber plastic extrusion coat.

22. (Currently Amended) A method for installing a fuel injector for a fuel-injection system of an internal combustion engine, the fuel injector having a solenoid coil, a tubular support acting as an inner pole of the solenoid coil, and a filter element affixed on an outer contour of the tubular support, the method comprising the steps of:

producing the filter element, the filter element including a cup—shaped filter having a cloth material;

extrusion-coating the filter element with a glass fiber plastic extrusion coat;

providing grooves having an undulating cross section in the outer contour of the tubular support, the tubular support including a shoulder on a discharge side of the grooves, and the shoulder extending radially outward beyond outer edges of the grooves;

mounting the filter element onto the outer contour of the tubular support;

mounting an extension sleeve on an outer contour of the filter element, an inner diameter of the extension sleeve being slightly smaller than an outer diameter of the filter element; and

radially compressing the glass fiber plastic extrusion coat of the filter element into the grooves in the outer contour of the tubular support, using mounting pressure applied by the extension sleeve.